

Modular Accessory Power System

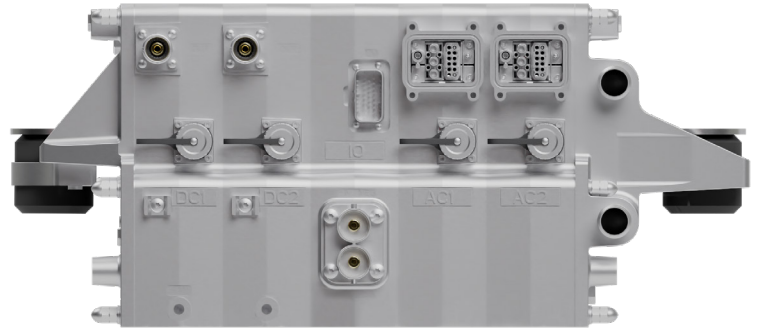
MAPS

Our next-generation, Modular Accessory Power System (MAPS) offers a compact and lightweight modular design, delivering best in-class power and performance utilizing game-changing power electronics.

Building upon 25 years of electric drive solution experience, we're pushing vehicle efficiency and reliability further using the latest technology and materials. The modular design of our power electronics enables our customers to choose the functionality required without adding unnecessary weight, creating a more compact component. MAPS can be customized based on the number of electrical accessories needing power and the amperage needed to operate them.

MAPS uses advanced materials such as silicon carbide to improve heat management, lower weight, and increase power density. Wide band gap transistors with gallium nitride provide faster switching, generate less heat, and decrease power losses and component size.

At a systems level, our electric drive configurations use 50 percent fewer connections, wires, and cables than competitive systems and help prevent efficiency losses.



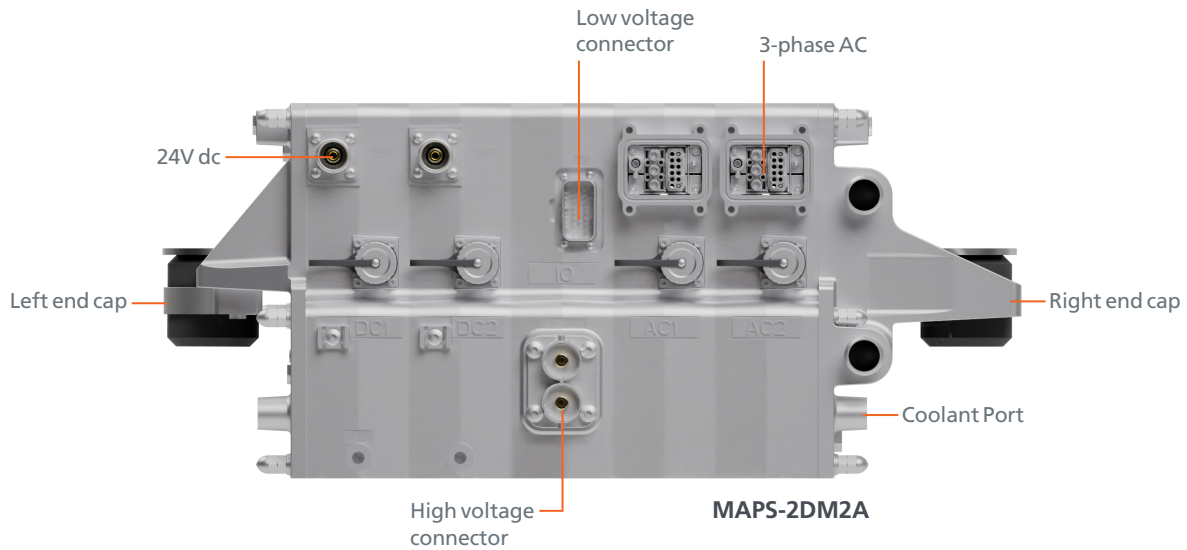
MAPS-2DM2A system is capable of powering 24Vdc systems and vessel accessory loads such as coolant pumps, air compressors, or hydraulic motors.

Powers:

- Starter and ignition power
- Pumps, compressors and motors
- 24Vdc house loads

Features:

- Modular, scalable design
- Configured to match power system requirements
- Rugged, compact multi-functional design
- Utilizes advanced materials such as silicon carbide and gallium nitride
- Independent power sources for fault isolation
- No regularly scheduled maintenance is required



Which configuration is best for you?

The number of modules needed is based on the amount of amperage needed (D) and the number of vehicle accessories to power (A).

Output and powers:

Model 2DM2A will provide 400 amps of 24 volt dc power and AC power to two independent three-phase vehicle accessories, each rated below 20kW.

Coolant:

Temperature for full performance: -40° to 149° F (-40°C to 65°C)

External ambient: -40° to 167° F (-40° to 75°C)

Coolant: water ethylene or propylene glycol 57 lpm (15 gpm)

MAPS Module Descriptions

D	24Vdc 200A module
M	I/O module with HV connection to MPCS
A	3-phase AC module

Model	24V dc current (A)	Number of 3-phase accessories	Width (mm)	Depth (mm)	Height (mm)	Weight kg (lbs)
1DM	200	-	390	372	272	27 (59)
1DM1A	200	1	462	372	272	34 (74)
1DM2A	200	2	534	372	272	40 (88)
2DM	400	-	462	372	272	35 (77)
2DM1A	400	1	534	372	272	41 (91)
2DM2A	400	2	606	372	272	48 (105)
2DM3A	400	3	678	372	272	54 (119)
3DM2A	600	2	678	372	272	56 (122)
3DM3A	600	3	750	372	272	62 (137)

North America

BAE Systems
1098 Clark Street
Endicott, NY 13760
USA

www.gettozero.com

Rest of World

BAE Systems
Marconi Way
Rochester, Kent ME1 2XX
UK

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